

Targeting Cancer Stem Cells in Hematologic Malignancies

Grant Award Details

Targeting Cancer Stem Cells in Hematologic Malignancies

Grant Type: Quest - Discovery Stage Research Projects

Grant Number: DISC2-10747

Investigator:

Name: Tannishtha Reya

Institution: University of California, San Diego

Type: P

Disease Focus: Acute Myeloid Leukemia, Blood Cancer

Award Value: \$1,960,560

Status: Pre-Active

Grant Application Details

Application Title: Targeting Cancer Stem Cells in Hematologic Malignancies

Public Abstract: Research Objective

We will develop a biotherapeutic/monoclonal antibody that blocks the growth of human AML cancer stem cells in vitro and in vivo.

Impact

Treatment of the cancer stem cell driven disease Acute Myelogenous Leukemia (AML) will be impacted. AML is the most common acute leukemia in adults and current treatments are largely ineffective.

Major Proposed Activities

- Development of monoclonal antibodies
- Identification of monoclonal antibodies that can block human AML growth in vitro
- Optimization of dose and delivery of monoclonal antibodies in vivo
- Identification of monoclonal antibodies that can block human AML growth in vivo
- Define impact of monoclonal antibodies on cancer stem cells in vivo by high resolution imaging

Statement of Benefit to California:

Because this research will lead to the development of new treatments for the deadly disease acute myelogenous leukemia, the State of California and its citizens will directly benefit. While AML is the most common adult leukemia, it also accounts for more than 50% of all leukemia-associated mortality in children. Thus, if successful, the biotherapeutic we propose to develop would improve outcomes for patients across a broad range of ages throughout the State of California

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